

AMENDMENTS TO THE CLAIMS

1. (currently amended) A process for the preparation of ammonia comprising the steps of:

 contacting an ammonia synthesis gas with an ammonia synthesis catalyst arranged as a reaction zone in one or more catalyst tubes;

 cooling the reaction zone by a heat conducting relationship with a cooling agent; and

 withdrawing an ammonia rich effluent stream from the reaction zone;

 wherein the cooling agent is selected from the group consisting of ~~eutectic mixtures of potassium nitrate, sodium nitrate, and sodium nitrite, eutectic mixtures of sodium hydroxide and potassium hydroxide,~~ and metals having a melting point below the temperature in the reaction zone, and wherein the cooling agent is circulated within cooling tubes, each cooling tube concentrically surrounding one of said catalyst tubes.
2. (original) The process of claim 1, wherein the ammonia synthesis gas is contacted with the ammonia synthesis gas arranged in two or more reaction zones with intermediate withdrawal of an ammonia rich effluent stream between the reaction zones.

3. (previously presented) The process of claim 1, wherein the ammonia rich effluent stream is separated into a stream of unconverted ammonia synthesis gas and an ammonia product stream, the unconverted ammonia synthesis gas is recycled to the reaction zone.
4. (previously presented) The process of claim 2, wherein the separation is obtained by cooling of the effluent stream and condensation of ammonia.
5. (previously presented) The process of claim 2, wherein the separation is obtained by adsorption of ammonia contained in the effluent stream.
6. (canceled)
7. (currently amended) A converter for the preparation of ammonia comprising:
 - a plurality of catalyst tubes, each tube adapted to receive ammonia synthesis gas and to hold a reaction zone of ammonia synthesis catalyst; and
 - a plurality of cooling tubes, each cooling tube concentrically surrounding a respective catalyst tube and being adapted to hold the cooling agent selected from the group consisting of ~~eutectic mixtures of potassium nitrate, sodium nitrate, and sodium nitrite, eutectic mixtures of sodium hydroxide and potassium hydroxide, and~~ metals having a melting point below the temperature in the reaction zone.

8. (previously presented) The converter of claim 7, wherein the wall of each cooling tube has a lower mechanical strength than the wall of the respective catalyst tube.
9. (previously presented) The process of claim 3, wherein the separation is obtained by cooling of the effluent stream and condensation of ammonia.
10. (previously presented) The process of claim 3, wherein the separation is obtained by adsorption of ammonia contained in the effluent stream.
11. (previously presented) The process of claim 1, wherein the step of contacting the ammonia synthesis gas takes place in a temperature range of between 300° C and 600° C.